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B6E

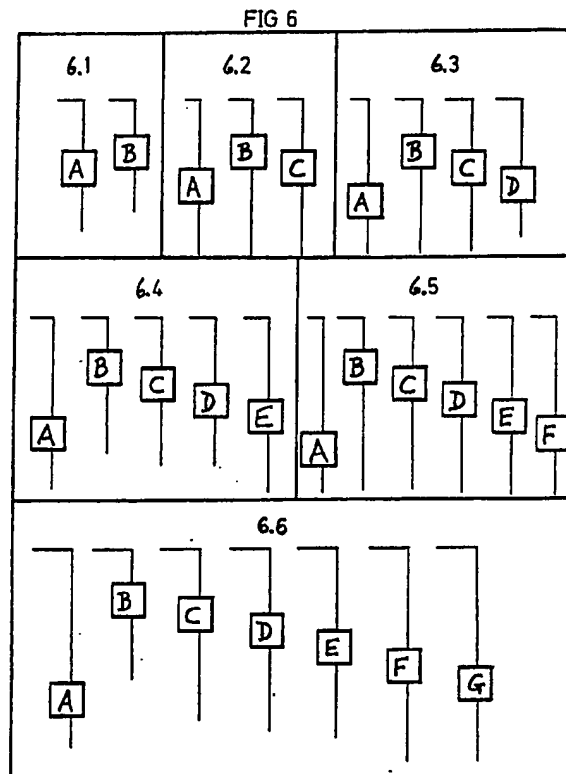
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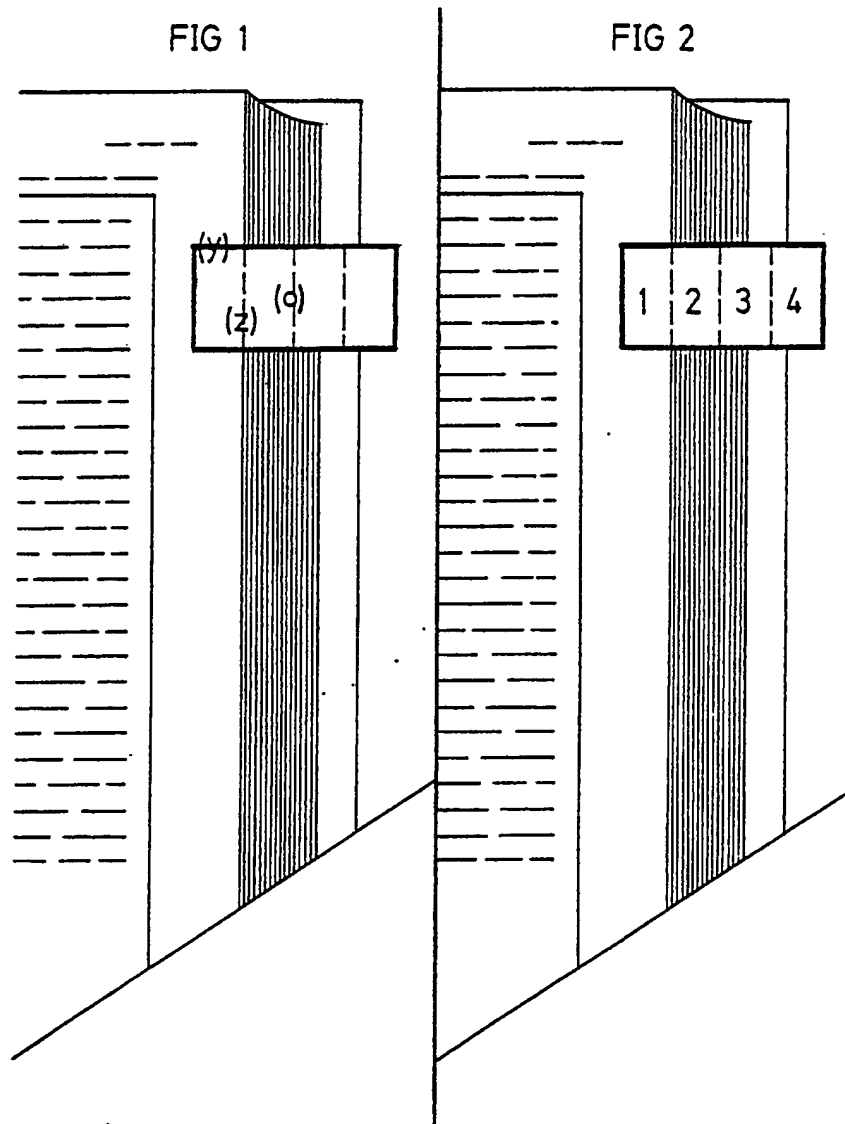
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(54) Manually-searchable index

(57) A book is provided with a manually-searchable index in the form of a series of flaps extending or protruding from the edge of the book. The flaps are arranged as a set of special or register flaps each having its own set of normal flaps which are sequentially identified. The register flaps are affixed to the relevant pages using an alignment guide in the form of a strip which can be mounted on any page to enable precise alignment of a flap relative to any other flap and to the top of the page by means of a scale provided on the strip. The normal flaps are then affixed to the pages which follow their registry flap using the same alignment guide, but with the normal flaps disposed in descending order referred to the front of the book, but in ascending order relative to their registry flap and to the top of the page. The result is that on lifting a registry flap, its normal flaps form a series which extends in a direction away from the next and following registry flaps so as not to conceal or obscure the latter. By this means a book can readily be indexed to a much greater depth than was previously possible, rendering searching through it very much easier and faster.



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FIG 3a

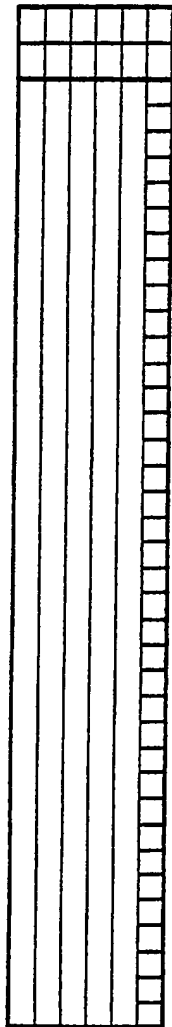
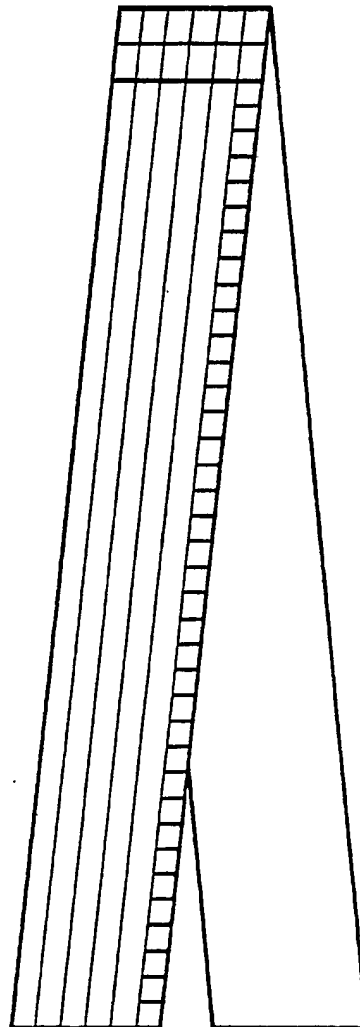


FIG 3b



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FIG 4a

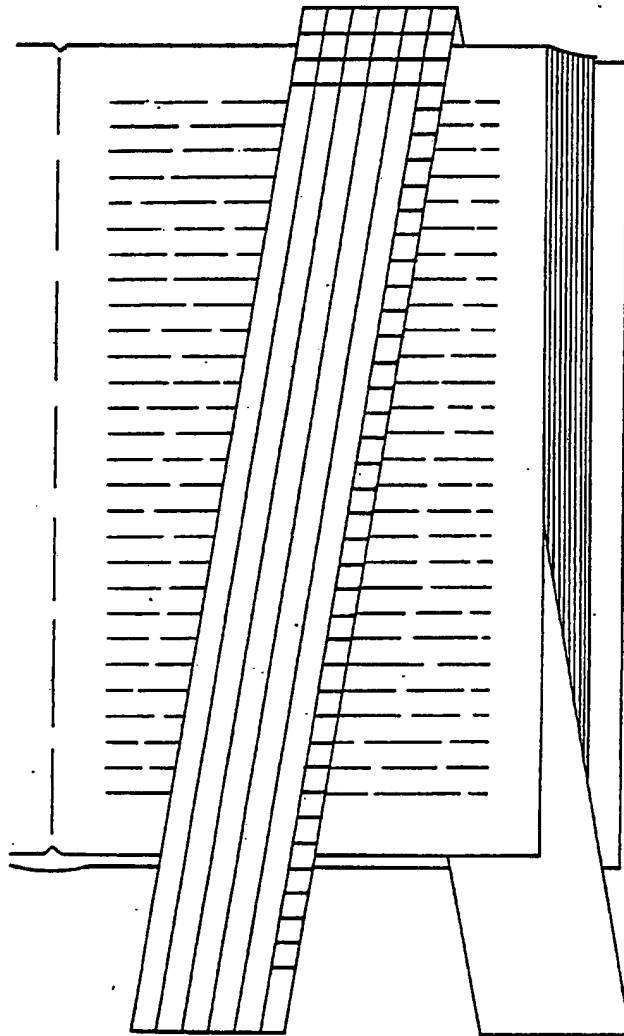
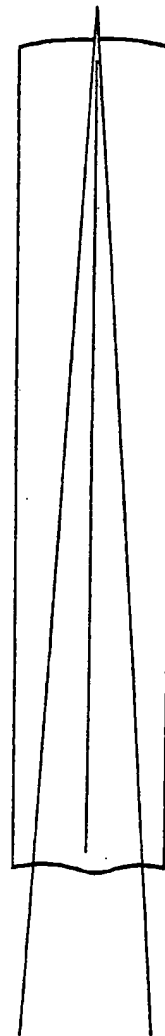
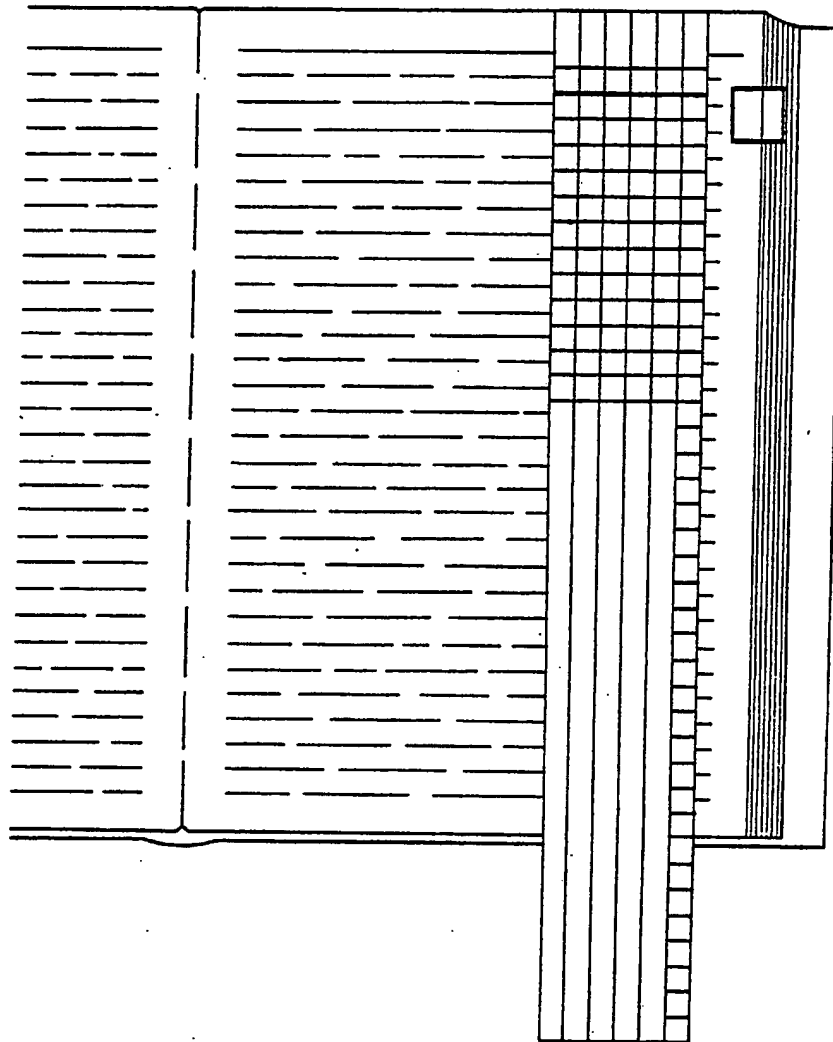


FIG 4b



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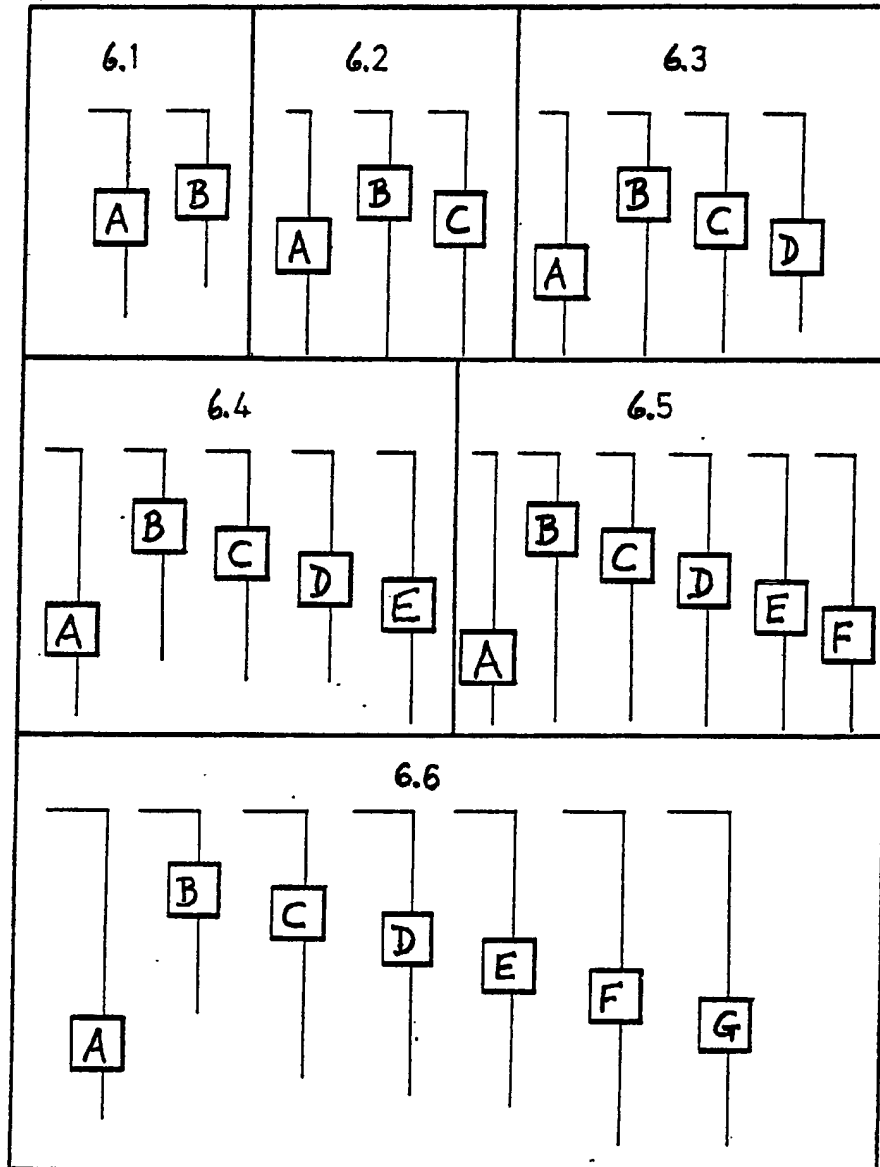
FIG 5



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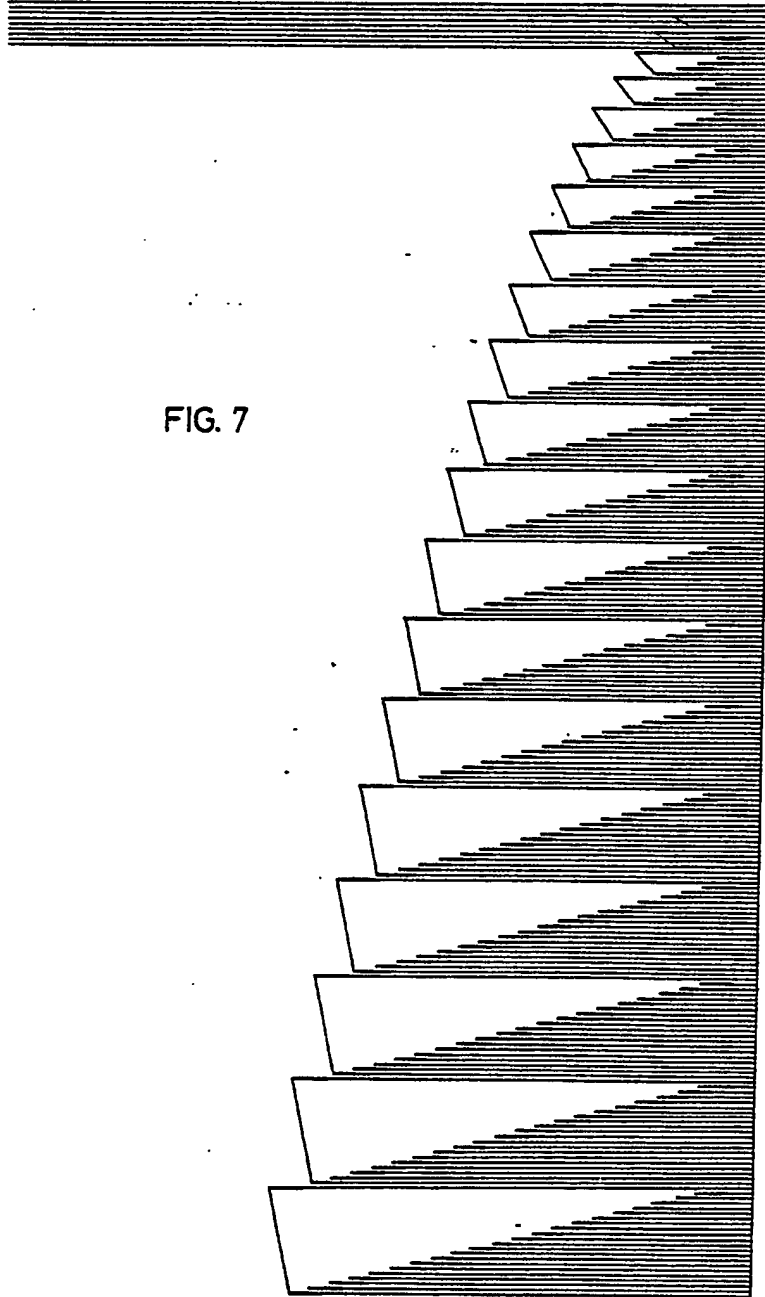
FIG 6



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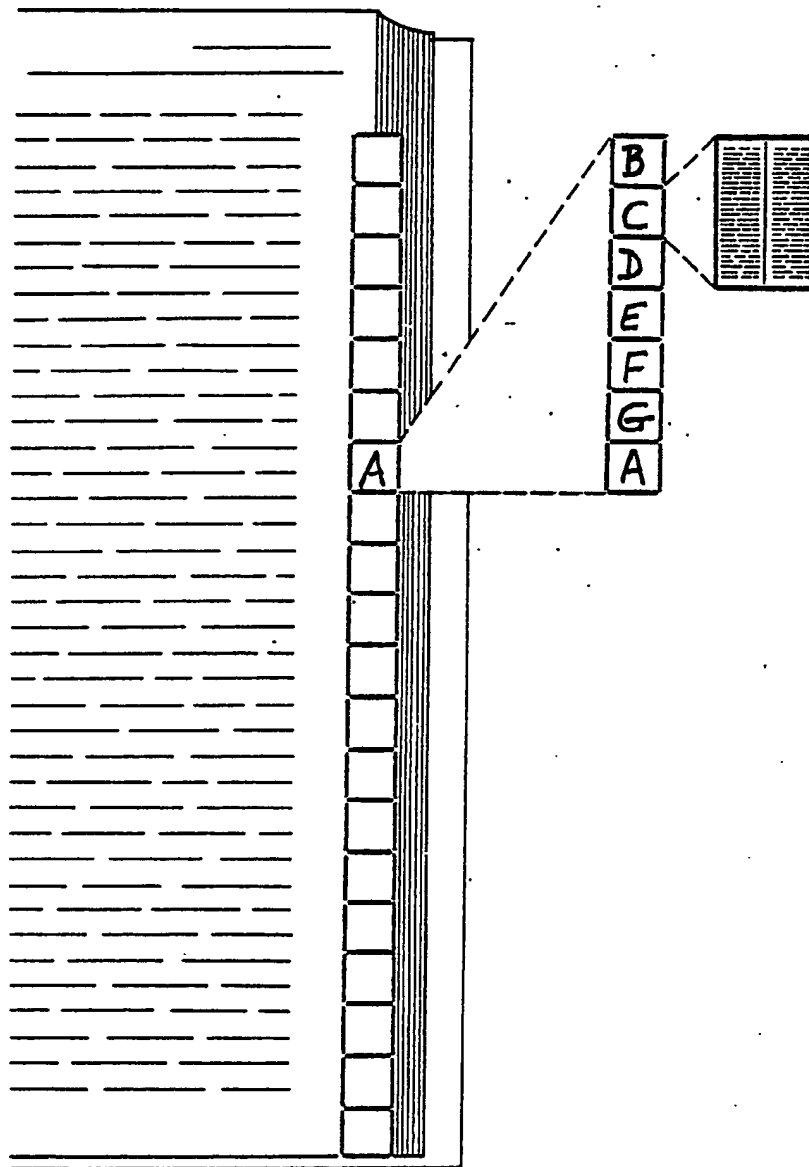
FIG. 7



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FIG 8



SPECIFICATION

Manually-searchable index**5 Field of the invention**

This invention relates to a method of providing a book with a manually-searchable indexing system, herein referred to as a digital index, and to a book having such an index.

10

Technical background

Dictionaries and similar works such as telephone books are notoriously difficult to search. The greater the number of pages the greater the difficulty in

15 finding a particular page or entry on that page.

Conventional indexing methods are of decreasing utility as the number of pages increases, because at best they merely give a very approximate indication of the exact location of a particular page, or even of a

20 set of pages. For example it is common practice to identify the individual alphabetical sections of a directory by means of narrow stripes or bands printed onto that edge of the closed book directly opposite the spine. Such bands must inevitably

25 encompass a substantial number of pages, if they are to be both clearly visible and readily distinguishable from other, adjacent bands.

Object of the invention

30 It is an object of the invention to disclose a method of providing a book with a digital index of considerably greater utility and precision than before. It is also an object of the invention to provide such an index in a form which is both easy to use and

35 accurate to the extent that it will rarely if ever be necessary to turn more than two or three pages in order to find a particular page and/or entry, almost regardless of the total number of pages in the book.

40 Brief description of the invention

According to the present invention a method of providing a book with a digital index (as hereinbefore defined) comprising a plurality of flaps protruding from an edge of the book, each flap being

45 attached to a separate page, comprises the steps of:-

(i) composing the index

(ii) preparing a set of flaps in the form of a series of special or registry flaps, each of which has associated therewith a set of sequentially-identified normal

50 flaps

(iii) affixing the registry flaps to the relevant pages of the book to form a regularly spaced series extending from top to bottom of the said edge of the book as seen from the front, by means of an

55 alignment guide in the form of a strip mountable on any page and having a scale to enable precise location of any flap relative to another flap and to the top and bottom of the page

(iv) affixing each set of normal flaps to those pages

60 immediately following their registry flap, using the same alignment guide and with the flaps disposed in descending order referred to the book as seen from the front, but in ascending order relative to their registry flap and to the top of the page, the

65 arrangement being such that on lifting or turning a

page bearing a registry flap the associated normal flaps following therefrom form a series which extends away from the next and following registry flaps so as not to conceal or obscure the latter.

70 The invention further comprises a book provided with a digital index by the method aforesaid.

It will be appreciated that the registry flaps each represent a section of the total index, the latter being divided into as many sections as the length of the

75 side or edge of the book will allow. It will also be appreciated that the registry flaps (and other flaps) will necessarily each have to be of a minimum practicable size if the indicia or identification on it is to be readily legible. Ordinarily the total number of

80 sections and associated registry flaps will inevitably be limited by the physical constraints imposed by the size of the book as regards both its total number of pages and the actual length of the edge of any one of these pages. This would therefore limit the depth

85 of indexing to one registry flap for a substantial number of pages, in most cases and except for the very simplest of books/directories. However, by using the method of the invention this limitation is completely overcome, since each page can now bear

90 a flap appropriately marked to indicate the content of that page.

Each registry flap still corresponds to a conveniently sized section of the index, but on turning to that registry flap, the associated series of normal flaps is revealed, without obscuring any of the successive registry flaps. It will be further appreciated that some directories or more particularly some dictionaries, are really more than one book in a single cover. They contain entirely independent

100 sections, for example a single dictionary with separate English-to-Spanish and Spanish-to-English portions. This is easily dealt with by treating each such portion as a completely separate book, and applying the method of the invention to each in turn.

105 It should be clearly understood that whilst registry flaps will normally be arranged in a logical sequence from top to bottom of the edge of the page(s) and from front to back of the book, or portion of the book, it is not essential that the set of normal flaps

110 associated with a registry flap should be assembled in the same way. For example, the normal flaps may be disposed in alpha-numeric order from the top of the page in a downward direction towards the

115 registry flap which lies immediately below (at the start of the next set of normal flaps). It is equally feasible for the alpha-numeric order to be reversed, with the sequence running upward from the next registry flap towards the page top, the topmost normal flap in such a case being the furthest down, i.e. on that page preceding the one bearing the next

120 registry flap in the sequence from front to back of the book, or portion of the book.

Likewise it will be apparent that the principle of the invention is not restricted to books containing

125 alpha-numerically-sequenced information. It can be applied to any kind of information that can be indexed by means of visual indicia, such as colours or combinations of colours.

130 *Description of preferred embodiments*

In order that the invention be better understood it will now be described by way of example with reference to the accompanying drawings, in which:-

Figures 1 and 2 are schematic front views of a partly open book

Figures 3a and 3b are front and perspective views respectively of an alignment guide

Figures 4a and 4b illustrate the the installation and use of the guide of *Figures 3a and 3b* on a particular page, seen from two different viewpoints

Figure 5 shows the alignment guide of *Figures 3 and 4* in use

Figure 6 is a composite figure showing six aspects of the construction of a digital index in accordance with the invention

Figure 7 is a side cross-section through the edge of a book having a digital index according to the invention and

Figure 8 is a schematic view of a partly open book as seen from the front.

Referring firstly to *Figure 1* the basic structure of a registry flap or a normal flap comprises a narrow strip which is symmetrical about a centre line (o). Its upper edge (y) denotes a reference level with respect to the top edge of the page, whilst line (z) denotes a lateral position indicator, with respect to the side edge of the page. *Figure 2* illustrates how the strip may be provided with indicia, the numeral 1 denoting that portion of the strip which is, in use or as installed, adhered to the front or facing surface of the page at the desired position from the top and side edges. The numeral 2 denotes that portion of the strip which contains indexing information, for example in a dictionary the first three letters of the first word on that page, or on the facing page if the page in question is blank. It will be seen that the numerals 3 and 4 will not normally be visible from the front of the book, because on folding about line (o) of *Figure 1*, the portions 3 and 4 are respectively the back of the flap and that part of it which is adhered to the back of the page, to confer strength and durability on the flap.

However the portions 1,3 and 4 can all bear such data as may be desired.

The size of the strip of *Figures 1 and 2* will be selected as a compromise between making the strip as small as practicable, without rendering the indicia (2) unduly difficult to read.

Referring to *Figures 3a to 4b* inclusive, *Figure 3a* shows a ruler-like alignment guide and *Figure 3b* shows the same guide in perspective. It is conveniently made from a long strip of paper or card folded about its centre for installation over the top of a particular page of a book which is to be indexed, as shown in more detail in *Figures 4a and 4b*.

Figure 5 shows the alignment guide after it has been used to position a flap, in this case at the second level down the page. Having determined the correct level, the flap (in the form of the strip shown in *Figures 1 and 2*) is folded about its centre line and firmly stuck down on both back and front of the page, taking up the final attitude of *Figure 5*. The indicia-bearing portion on it extends from the edge of the page. *Figure 6* illustrates various stages or aspects, in progressively increasing order of com-

plexity. Thus *Figure 6.1* illustrates the simplest possible relationship between the top edge of a page and a registry flap A and a normal flap B, on the next page. If A is the first registry flap in the book, B will be readily visible from the front of the book, of course. If A is not the first registry flap, then B will not be visible due to intervening earlier registry flaps and associated normal flaps. However, for present purposes A will be assumed to be the first registry flap.

Figure 6.2 features one registry flap A and two normal flaps, B and C respectively, on the two immediately following pages. Both of the latter are readily visible when A is visible. It will be appreciated that the use of the alignment guide is virtually essential to achieving accurate location of the various flaps on their own pages.

Figures 6.3, 6.4, 6.5 and 6.6 illustrate progressively more complex dispositions of normal and registry flaps. In *Figure 6.6* there are six normal flaps (B,C,D,E,F, and G) behind registry flap A. It is to be noted that in this particular instance no less than six separate pages, plus their registry flap have been uniquely identified without obscuring succeeding registry flaps, because the next of these (in the series of registry flaps) would be located on the seventh page on exactly one level below that of flap A (with the rest of the series displaced one level lower each time and of course, each on its own page.)

Referring to flap A, its normal flaps would all be readily visible (as shown in *Figure 6.6*) if there were no intervening registry flaps, as has been assumed. Referring to the next registry flap, on the seventh page down from flap A, its own set of normal flaps would all be visible (exactly as in *Figure 6.6*) if the preceding seven (in this example) pages were turned to the left.

Applying similar considerations to each registry flap and its normal flaps will result in a book with a side cross-section of the kind illustrated by *Figure 7*. In this *Figure*, the book thickness (the vertical height in the *Figure*) has been multiplied by a factor of about ten in order to show the profile formed by the flaps. The illustration in *Figure 7* is of a book of 252 pages (corresponding to 504 printed sheets) and if opened at registry flap A (the first) one would see this flap and all succeeding registry flaps, but only the normal flaps of flap A; the rest would be concealed.

In the case of a typical Spanish dictionary the registry flaps might be marked in the sequence ABR ACO AGE ANT ART BAL CAD COM CUE DES.....ZAR.

If it were desired to find the word CEMENT which clearly follows from CAD, but precedes COM, one would turn to registry page CAD, thereby revealing its normal flaps. These might be marked in the sequence CAR CAT CEN CER CIR CUR COC COL, followed of course by the next registry flap COM.

Since CEN denotes the first word on the CEN page, CEMENT will be on the preceding normal flap page marked CAT. Thus with a minimum of effort and only two page turns a specific entry has been found in a 252 page book. It will be readily appreciated that the example just given in a simple one and that the principle applies equally - but with greater utility and

saving of effort - to much bigger books.

To further illustrate the construction of the digital index to the 252 page dictionary described earlier, a most convenient break-down would be to select 21 registry pages and allocate registry flap indicia accordingly. That would give 21 groups of normal flap pages, totalling 231 pages, plus the 21 registry flap pages themselves, to make up the total of 252 pages. The next step is to allocate indicia to the normal flaps. This all only has to be done once, of course, since further copies of the same dictionary will be identically treated. The flaps are then assembled, marked and installed with the aid of the alignment guide, which is ruled to suit the page and flap dimensions.

Figure 8 shows schematically how each registry flap A has its own set of normal flaps and their relative dispositions (BCDEFG, respectively) and how each of the indicia on these flaps corresponds to its particular page in the dictionary or other book.

If A were CAD, say, then B would be CAR; C would be CAT and so on, using the example of a Spanish dictionary given earlier.

It will be appreciated that in Figure 8 only the first or register flap will be seen complete; until that flap is lifted, its normal flaps are concealed by preceding register flaps.

CLAIMS

30

1. A method of providing a book with a digital index (as hereinbefore defined) comprising a plurality of flaps protruding from an edge of the book, each flap being attached to a separate page, the method comprising the steps of:-
(i) comprising the index
(ii) preparing a set of flaps in the form of a series of special or registry flaps, each of which has associated therewith a set of sequentially-identified normal flaps

40

(iii) affixing the registry flaps to the relevant pages of the book to form a regularly spaced series extending from top to bottom of said edge of the book as seen from the front by means of an alignment guide in the form of a strip mountable on any one page and having a scale to enable precise location of any flap relative to another flap and to the top of the page

(iv) affixing each set of normal flaps to those pages immediately following their registry flap using the same alignment guide and with the flaps disposed in descending order referred to the book as seen from the front, but in ascending order relative to their registry flap and to the top of the page, the arrangement being such that on lifting or turning a page bearing a registry flap the associated normal flaps following therefrom form a series which extends away from the next and following registry flaps so as not to conceal or obscure the latter.

2. A method according to claim 1 wherein the normal flaps associated with a registry flap are disposed in alpha-numeric order from the top of the page in a direction downwards towards the immediately-following registry flap, if any.

3. A method according to claim 1 wherein the

normal flaps associated with a registry flap are disposed in alpha-numeric order from the immediately-following registry flap (if any) in a direction upwards towards the top of the page.

4. A method of providing a manually-searchable index substantially as herein before described with reference to and as illustrated by the accompanying drawings.

5. A book provided with a manually-searchable, digital index by means of the method of any preceding claim.

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